

Remarks

The Office Action mailed October 19, 2005 and made final has been carefully reviewed and the foregoing amendment has been made in consequence thereof.

In accordance with 37 C.F.R. 1.136(a), a three month extension of time is submitted herewith to extend the due date of the response to the Final Office Action dated October 19, 2005 for the above-identified patent application from January 19, 2006, through and including April 19, 2006. In accordance with 37 C.F.R. 1.17(a)(3), authorization to charge a deposit account in the amount of \$1020.00 to cover this extension of time request also is submitted herewith. The present amendment is submitted with a Request for Continued Examination and is therefore timely filed.

Claims 1-30 are now pending in this application, of which claims 1, 3, 15 and 18 have been amended, and of which claims 21-30 are newly added. It is respectfully submitted that the pending claims define allowable subject matter.

The rejection of claims 1-3 and 5-20 under 35 U.S.C. § 103(a) as being unpatentable over Murray (U.S. Patent No. 6,687,110) is respectfully traversed.

Applicants note the following with respect to the applicable law of anticipation. As explained by the Federal Circuit, a Section 102(b) rejection on the ground of "anticipation" requires a disclosure in a single piece of prior art of each and every limitation of a claimed invention. A finding of anticipation requires that the publication describe all of the elements of the claims arranged as in the patented device. In other words, to anticipate, a single reference must teach every limitation of the claimed invention.

Claim 1 now recites a system for controlling and monitoring a power distribution system, comprising "a connection to a power line within the power distribution system," "a switchgear housing unit connected to the power distribution system and including a switchgear mechanism for controlling the connection," "electronic controls for monitoring and controlling the switchgear mechanism," "wherein the electronic controls are embedded within the switchgear

housing unit to form a single, self-contained unit,” and “wherein the electronic controls include a digital interface configured to communicate control information for controlling the switchgear mechanism from the self-contained unit to another location using a single control cable.”

Murray does not disclose or suggest “a digital interface configured to communicate control information for controlling the switchgear mechanism from the self-contained unit to another location using a single control cable”, together with the other recitations of claim 1. The Final Office Action concedes that Murray does not disclose a digital interface in paragraph 4 on page 6 of the Final Office Action. Further, the radio transceivers disclosed by Murray operate wirelessly, and Murray is respectfully submitted to teach away from the digital interface and the single cable recited in claim 1. As Murray neither describes nor suggests all of the recitations of claim 1, claim 1 is respectfully submitted to be patentable over Murray.

Claims 2-3, 5-14 and 20 depend, directly or indirectly, from claim 1 and when the recitations of claims 2-3, 5-14 and 20 are considered in combination with the recitations of claim 1, claims 2-3, 5-14 and 20 are likewise submitted to be patentable over Murray. Additionally, while for the sake of brevity Applicants will not specifically argue the recitations of dependent claims 2-3, 5-14 and 20, Applicants respectfully disagree that the subject matter of the dependent claims is disclosed or suggested by Murray.

Claim 15 now recites a method for controlling and monitoring a power distribution system, the method comprising “monitoring a connection to a power line within the power distribution system using electronic controls embedded within a switchgear housing unit,” “controlling the connection to the power line within the power distribution system using the electronic controls embedded within the switchgear housing unit,” “communicating via a long range communications device of the electronic controls, with a utility,” and “providing, via a short range communications device of the electronic controls, a remote device management functionality through a virtual communications based operator interface.”

Murray discloses a circuit breaker including an electronic controller and a communications transceiver, preferably a radio, for communication with other circuit breakers. *See* Murray col. 9, lines 1-17. A wireless peer communications interface (77) may be provided

for communication amongst controllers associated with different phases of current. *See* Murray col. 11, lines 5-10. Murray neither disclose nor suggest the recited method of claim 15, including at least the steps of “communicating via a long range communications device of the electronic controls, with a utility,” and “providing, via a short range communications device of the electronic controls, a remote device management functionality through a virtual communications based operator interface.”

Murray simply disclose a radio transceiver and a wireless peer communications interface. Murray illustrates transceivers (75) and (77) in relation to Figure 7, but is simply silent regarding whether the transceivers are of the same or different type, and Murray certainly does not disclose or suggest that the transceivers (75) and (77) are differently configured from one another for long range and short range communication. Nothing in the Murray disclosure contemplates or suggests long range and short range communication devices included in electronic controls embedded within a switchgear housing unit. Claim 15 is therefore respectfully submitted to be patentable over Murray.

Claims 16-19 depend directly from claim 15 and when the recitations of claims 16-19 are considered in combination with the recitations of claim 15, claims 16-19 are likewise submitted to be patentable over Murray. Additionally, while for the sake of brevity Applicants will not specifically argue the recitations of dependent claims 16-19, Applicants respectfully disagree that the subject matter of the dependent claims is disclosed or suggested by Murray.

Applicants therefore respectfully request that the Section 102 rejection of claims 1-3 and 5-20 be withdrawn.

The rejection of claim 4 under 35 U.S.C. § 103(a) as being unpatentable over Murray in view of Burton et al. (U.S. Patent No. 4,814,712) is respectfully traversed.

Applicants note the following with respect to the law of obviousness. As explained by the Federal Circuit, "to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant." *In re Kotzab*, 54 USPQ2d

1308, 1316 (Fed. Cir. 2000). "It is impermissible . . . to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art." In re Wesslau, 147 USPQ 391, 393 (CCPA 1965). See also, Smithkline Diagnostics, Inc. v. Helena Laboratories, Corp., 8 USPQ2d 1468, 1475 (Fed. Cir. 1988) ("claims, entire prior art, and prior art patents must be read 'as a whole'"). If art "teaches away" from a claimed invention, such a teaching supports the nonobviousness of the invention. U.S. v. Adams, 148 USPQ 479 (1966); Gillette Co. v. S.C. Johnson & Son, Inc., 16 USPQ2d 1923, 1927 (Fed. Cir. 1990).

In light of the above standard of obviousness, it is respectfully submitted that the cited art, for the reasons set forth below, does not support the present rejection of claim 4. As briefly explained below, Burton et al. is not believed to add to the teaching of Murray and does not cure the deficiencies of Murray with respect to the invention. Consequently the combination of Murray and Burton et al. is not believed to render claim 4 obvious.

Burton et al. disclose breakers with test jack access openings providing "temporary electrical connection" between a test kit (20) and an integrated circuit breaker (10) with a flexible cable (27). *See* Burton et al. col. 1, lines 42-50. In contrast, Murray and the present invention each relate to electronic controls for electrical switchgear in power distribution networks, and such temporary electrical connection as in the device of Burton et al. would neither be desirable nor advantageous for controlling power distribution networks for reasons that are believed to be apparent. Furthermore, the Murray breaker includes wireless transceivers that are not consistent with communication on a single cable as claim 4 recites.

Additionally, the Burton et al. test kit is operable independent of and is unrelated to any operating condition of the breaker associated with the test kit. The test kit is operational whether the breaker is in an "on" or "off" position and is operable whether or not the breaker is energized. *See* Burton et al. col. 1, lines 56-60. In contrast, the controls of Murray and the invention are responsive to and the behavior of the controls is dependent upon actual operating conditions of the power distribution network to which the switchgear is connected. Still further, the Burton et al. test kit is a testing device, rather than a control device. The Burton et al. test kit confirms functionality of the breaker by initiating a self test of the trip unit of the circuit breaker

and displaying the test results. The test kit may also display switch settings and options. The test kit, however, does *not* “control” or dictate the functionality or the responsiveness of the breaker to operating conditions. While the Burton et al. test kit may simulate an overcurrent condition and request that the breaker interrupt the circuit, such a simulation or request is simply a control input to which the breaker responds. The controls of Murray and the invention, however, determine the response of the switchgear to control inputs. Claim 4 recites a single cable *providing electronic control signals* to enable an operator to *interface with* the electronic controls. The Burton et al. test kit does not supply control signals and provides no operator interface with the circuit breaker controls.

In view of at least these differences between the device of Burton et al. Murray and the present invention, Burton et al. is submitted to add nothing to the teaching of Murray with respect to the invention, and there is no clear relation between the Murray and Burton et al. disclosures that would have led one of ordinary skill in the art to combine the references in the manner proposed in the Final Office Action. The proffered motivation to combine the teaching of the references is “to provide a local access to the controller of the switchgear for maintenance even if remote communication failed.” It is noted however, and the Final Office Action points out as much on page 5, that the Murray device includes a manual operating lever to trip the device and provide a visual break in the distribution line. Such manual operation of the device overrides the controls and would be utilized if wireless communications were to fail. There is no apparent reason found in the cited art, and the Final Office Action fails to supply one, *why* one would want or need access to an electronic controller in the switchgear in such circumstances. Indeed, Murray discloses that the control module (30) is disposed in a separate cartridge to facilitate removal from the breaker housing. *See* Murray col. 8, lines 1-3 and 44-59. As such, the Murray control module may simply be removed from the breaker for maintenance, repair, or replacement, and no local access to the electronic controller of Murray via a cable is necessary to rectify problems or perform maintenance issues. The present rejection therefore appears to grounded in impermissible hindsight reconstruction of the invention using isolated portions of prior art references to deprecate the claimed invention, rather than being grounded in the actual teaching of the Murray and Burton et al. disclosures.

Claim 4 is therefore submitted to be patentable over Murray in view of Burton et al., and Applicants respectfully request that the Section 103 rejection of claim 4 be withdrawn.

With respect to the newly added claims, the cited art does not disclose or suggest, in combination with other recitations of claim 21, "an enclosure, separately provided from the switchgear housing, mounted at a second location apart from the first location; and a single control cable establishing a prolonged connection to the embedded electronic controls in the switchgear housing, the single control cable communicating control information for operating the switchgear mechanism from the embedded electronic controls to the enclosure at the second location." Murray discloses a breaker controller communicating wirelessly with other breakers and systems, and the Burton et al. device does not communicate control information for operating the switchgear mechanism from the embedded electronic controls to the enclosure of the test kit. Additionally, the Burton et al. test kit is apparently a portable, hand held device that is transported to and temporarily connected to the location of the breakers, and consequently is not mounted in any particular location and is not intended for prolonged connection to the breakers. Claim 21 is therefore submitted to be patentable over the cited art.


Claims 22-26 depend from claim 21, and when the recitations of claims 22-26 are considered in combination with claim 21, claims 22-26 are likewise submitted to be patentable over the cited art. Additionally, while for the sake of brevity Applicants will not specifically argue the recited subject matter of claims 22-26, claims 22-26 are believed to recite subject matter that is neither disclosed or suggested by Murray and Burton et al. and that claims 22-26 also recite patentable subject matter.

Newly added claims 27-29 depend from claim 1 that is submitted to be patentable over the cited art for the reasons set forth above. When the recitations of claims 27-29 are considered in combination with the recitations of claim 1, claims 27-29 are likewise submitted to be patentable over the cited art. Additionally, while for the sake of brevity Applicants will not specifically argue the recited subject matter of claims 27-29, claims 27-29 are believed to recite subject matter that is neither disclosed or suggested by Murray and Burton et al. and that claims 27-29 also recite patentable subject matter.

Newly added claim 30 depends from claim 15 that is submitted to be patentable over the cited art for the reasons set forth above. When the recitations of claim 30 are considered in combination with the recitations of claim 15, claim 30 is likewise submitted to be patentable over the cited art. Additionally, while for the sake of brevity Applicants will not specifically argue the recited subject matter of claim 15, claim 15 is believed to recite subject matter that is neither disclosed or suggested by Murray and Burton et al. and that claims 30 also recites patentable subject matter.

In view of the foregoing amendments and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,



Bruce T. Atkins
Registration No. 43,476
ARMSTRONG TEASDALE LLP
One Metropolitan Square, Suite 2600
St. Louis, Missouri 63102-2740
(314) 621-5070